

Measuring the Tax Compliance Burden of Small Businesses

*Donald DeLuca, Arnie Greenland, John Guyton, Sean Hennessy, and
Audrey Kindlon, IBM Business Consulting Services*

In 1998, IBM Business Consulting Services (IBM) began working with the Internal Revenue Service (IRS) to develop a new and improved methodology for measuring and modeling the Federal tax compliance burden incurred by taxpayers.¹ Federal tax compliance burden is defined under this methodology as the time and money that taxpayers expend each year to comply with Federal tax rules and regulations. IBM is enhancing the IRS's ability to understand the burden caused by the Federal tax system using an incremental approach. That is, we are studying the major taxpayer subgroups (as defined by the IRS) individually. Initially, IBM completed a study of the prefiling/filing tax compliance burden experienced by Wage and Investment (W&I) taxpayers. This was followed by a study to measure and model the pre-filing/filing tax compliance burden experienced by Self-Employed (SE) taxpayers. The information collected during these two studies provided the IRS with a measure of the burden experienced by all individual taxpayers.

In each of these studies, we developed and administered a large-scale survey to a representative sample of taxpayers throughout the country. The data collected in the survey were merged with IRS administrative data to serve as the input file to develop a simulation model that the IRS can use to produce burden estimates, evaluate policies, and review burden reduction initiatives.

IBM is currently completing a similar study for IRS of the prefiling/filing Federal tax compliance burden experienced by small business (SB) taxpayers in the United States. This research is more complex than our prior research as previous studies focused only on Federal income tax compliance burden. The SB study focuses on both Federal income and Federal employment tax compliance burden. In addition, businesses exhibit considerable variation in industry, size, and structure. This paper reports the key findings from the data collection portion of the SB study. As part of the study, IBM conducted two large-scale surveys of taxpayers. One of the surveys collected information about the Federal income tax burden that small businesses incur. The other survey focused on the burden associated with Federal employment taxes.

This study is important for several reasons. First, the data collected will complement data from previous studies of W&I and SE taxpayers and, therefore, provide the IRS with a broader understanding of taxpayer compliance burden. In addition, our review of the literature leads us to conclude that very little research has been done on the tax compliance burden experienced by small business taxpayers. Most of the studies found during the literature review focused on small businesses in other countries, or examined the full spectrum of Government regulation facing small businesses and did not concentrate exclusively on tax compliance.² The findings presented in this paper shed new light on the nature and magnitude of the compliance costs incurred by small businesses.^{3,4}

Survey Methodology

Sampling

One of the first decisions made during the design of this project was how to define a small business. While this decision may seem trivial, it is complicated by the many accepted ways to define a small business and the lack of a generally accepted standard. For example, the Small Business Administration uses a definition that varies by industry and uses the number of employees, average annual receipts, or some combination of the two. The IRS defines a small business as one with assets totaling no more than \$10 million that is organized as a C corporation, S corporation, or partnership. We ultimately decided to use this latter definition since it most closely aligned with the IRS' organizational and data structure.

As previously stated, we administered two separate large-scale surveys, one asking taxpayers about their experiences complying with their Federal income tax obligations and the other asking them about Federal employment taxes. Both of these surveys focused on the burden experienced during the prefiling and filing time period.

We developed our sampling frame using Processing Year 2003 Midwest Automated Compliance System (MACS) data. MACS is an IRS administrative data source containing tax return information. The majority of the records in this file were from Tax Year 2002.

For the income tax survey, we segmented the population based on the following variables:

- Primary Form Filed—Forms 1065, 1120, 1120S, 1120A, and several of the 1120 Specials, including 1120F, 1120FSC, 1120H, 1120POL, and Other

- Asset Class—Negative Assets, Zero Assets, \$1 - \$99,999, \$100,000-\$249,999, \$250,000 - \$499,999, \$500,000 - \$999,999, \$1,000,000-\$4,999,999, and \$5,000,000 - \$10,000,000
- Prep Method—Paid Prep or Self-Prep
- Employees—Has Employees, Does Not Have Employees
- Industry—Real Estate versus Nonreal Estate

We used the field for Salaries and Wages as a proxy for having employees. If this value was greater than zero, we concluded that the firm had employees. Using these variables and collapsing cells together, we created 27 individual strata and a total sample frame of 70,000 small business taxpayers.

Processing Year 2003 Compliance Research Information System (CRIS) data were used to develop a sample frame for the employment tax study. From our qualitative research and prior research on employment tax, we believed that this population was less complex in the sense that there is less variability when it comes to time and money spent and fewer factors that drive the levels of time and money burden in comparison to the income tax population. Therefore, our segmentation was less complex for this study. The employment tax population was stratified based on the following variables:

- Forms Filed—Form 940, 941, 943, and 945
- Annual Employment Tax Liability—Calculated from Quarterly Forms 941
- Industry—Real Estate versus Nonreal Estate

From these variables, six strata were created, and a total sample frame of 20,000 small business taxpayers was selected.

Questionnaire Design

We designed two separate questionnaires for this study. During the questionnaire design phase of this project, we leveraged our prior experience developing and administering questionnaires for the W&I and SE populations. From this experience, we gained valuable insights into the proper way to structure the questionnaire, the optimal questionnaire length, words and phrases that serve as effective prompts, and the appropriate way to word our questions.

In addition to our prior experience, we also used insights from qualitative research. During the qualitative research, we spoke with more than one hundred small businesses to understand the activities in which they engage to

comply with their tax obligations. These sessions informed us about the components of compliance burden, as well as the way that taxpayers think about these issues.

One of the biggest challenges in developing the questionnaires for the SB taxpayer population was how to address joint costs. Joint costs refer to the fact that many activities in which businesses engage are done for general business reasons, as well as tax purposes. It is our intent to clarify for the respondent which activities are considered Federal tax compliance activities and which activities are not.

As draft questionnaires were developed, they were pretested on a small sample of taxpayers to determine the length of the questionnaire and identify areas where questions needed to be dropped or modified. The final income tax questionnaire is divided into 11 sections, each focusing on one of the major compliance activity categories that we devised (e.g., recordkeeping, working with a paid professional, etc.) and takes approximately 20 minutes to complete. The final employment tax questionnaire is divided into 12 similar sections and also takes approximately 20 minutes to complete. Skip patterns are used so that taxpayers avoid spending time on sections that are not applicable to their situations.

Survey Execution

Both surveys were executed using a mixed-mode telephone and mail approach. This methodology was used during our prior studies, and we believe that it is the most effective way to maximize response rate given our target completes and time frame.

The income tax survey and employment tax survey were administered separately, and we ensured that no small business appeared in both the income tax and employment tax sample frames. From our qualitative research, we determined that income tax burden and employment tax burden were independent of one another. This means that the level of income tax burden experienced by a taxpayer does not impact his or her level of employment tax burden and vice versa. Additionally, collecting information on income and employment tax burden from the same taxpayers was expected to significantly hinder our response rates. If we combined the questionnaires into one, it would become prohibitively long, and it is well known that response rate is, in part, a function of questionnaire length. Another option would be to administer two separate questionnaires to the same business during separate interviews. We concluded that businesses were more likely to participate given that they had to complete one interview as opposed to two interviews.

The telephone interviews were conducted in our onsite Computer As-

sisted Telephone Interviewing (CATI) Center by trained interviewers. Potential respondents were screened to make sure they met the survey criteria: a small business, according to the IRS definition, paid income or employment tax depending on the survey it was taking; was the person taking the call the most knowledgeable about the tax compliance work; and was that person willing to participate in the interview? Those respondents that we were unable to reach via telephone were transferred to the mail sample.

The mail sample was composed of those taxpayers for whom we were unable to acquire a phone number, as well as those taxpayers we were unable to reach in the phone sample. Our protocol for sending taxpayers a questionnaire in the mail sample was as follows. Taxpayers were sent an initial mailing that contained the survey questionnaire, a letter from the commissioner of IRS with his endorsement of the study, a letter from IBM informing the respondent about the purpose of the study, the incentive payment, instructions on how to complete the questionnaire, and a postage-paid envelop to return a completed questionnaire. One week later, they were sent a postcard reminding them to complete the questionnaire. Three weeks after receiving the initial package, they received the same package with a slightly modified IBM letter. Finally, 7 weeks after the initial mailing, taxpayers received a final package that is the same as the other two except it had a slightly modified IBM letter. Taxpayers who completed the survey at any point in this process did not receive the subsequent mailings. This protocol is a standard technique that helps maximize response rate in the mail surveys.⁵ We utilized this protocol with great success in our prior studies of W&I and SE taxpayers.

In addition to this protocol, we used several additional techniques to increase our response rate. These included offering respondents an incentive payment for completing the interview, using multiple call-backs to increase the chance of completing a phone interview, and using refusal conversion techniques to complete interviews with those taxpayers offering initial soft-refusals.

Compliance Costs by Firm Characteristics

In this section of the paper, we present findings on how compliance costs are related to small business characteristics. During the course of the interview, we asked taxpayers to report the time they spent on each of seven income tax and eight employment tax activity categories⁶ that are completed for tax compliance purposes. We also asked taxpayers to report total money spent on tax compliance.⁷

There are skip patterns inherent in these questionnaires that allow respondents to skip sections that are not applicable to their compliance situa-

tions. In this case, blank responses are converted to a value of zero. One example of such a skip pattern is the following: respondents who have a paid preparer complete their income tax forms are not asked how much time they spend on form completion. For the analysis presented in this paper, this blank response is converted to a zero response. However, many respondents do not provide a response to all the time and money questions that are applicable to their situations. For the purposes of this analysis, we interpreted these blanks as nonresponses and not zero responses. To produce the mean total time and money compliance costs displayed in this paper, we calculated the average costs for each of these individual activity categories (e.g., recordkeeping, form completion, etc.) over those respondents who provided a valid response (i.e., nonblank response after making conversions). The mean total compliance cost is the sum of these individual averages. We believe this is the most unbiased way to construct the mean total time and total money values.⁸ The mean compliance costs for time and money produced using this methodology should not be multiplied against population numbers to produce burden estimates for the entire SB population. We do intend to produce these numbers using data collected in this study, but first must decide how to properly impute missing time and money values.

Firm Size

Our analysis indicates that one of the demographic variables strongly related to a business's level of compliance burden is firm size. In the results presented below, we use the number of employees as a measure of firm size. We also conducted this analysis using assets as a measure of firm size, and the results are extremely similar. We did not present the results with assets in this paper because, at the time the paper was written, we did not have asset data for the employment tax sample and we only had asset data for a portion of our income tax sample.

Table 1 illustrates that average total time and money burden spent on income tax compliance increase as firm size increases. The smallest businesses in our sample have approximately 214 hours of annual total time burden, which computes to just over 4 hours each week and annual out-of-pocket expenses of approximately \$1,839. In contrast, firms with 100 or more employees have nearly four times as much total time burden and nearly three times as much total money burden as the smallest firms.

Table 2 illustrates that the relationship between firm size and employment tax total time burden is consistent with the results we found for income tax. Average total time burden increases with firm size; however, the percentage differences between the firm size categories is less pronounced. For

Table 1.--Income Tax Compliance Burden by Firm Size

Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
All Firms	247	2,181	5,875
1 - 19 Employees	214	1,839	5,108
20 - 99 Employees	450	4,738	654
100 or More Employees	841	6,262	113

example, the largest firms have 1.8 times the total time burden as the smallest firms, but the difference between the 20-99 employees category and the 100 or more employees category is minimal. Mean employment tax total money burden does not follow the pattern that it did for income tax. For employment tax, the largest mean money burden is spent by firms in the middle-size category. This is most likely attributable to the fact that fewer firms in the 100 or more employees category use a paid professional than those in the 20-99 employees category (51 percent versus 61 percent). Instead, a larger percentage of these firms are using tax software to prepare their employment tax returns.

Table 2.--Employment Tax Compliance Burden by Firm Size

Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
All Firms	143	488	1,208
1 - 19 Employees	127	436	955
20 - 99 Employees	229	858	205
100 or More Employees	234	572	48

Prep Method

The next characteristic we examined is the preparation method chosen by small businesses. During the interview, we asked taxpayers to tell us how they completed their tax returns: using a paid professional (paid preparers); using inhouse using tax software (software preparers); or completing the return inhouse without tax software (self-preparers). Our findings from the small business study as well as from the individual taxpayer studies tell us that preparation method is a very important variable in explaining the level and composition of total compliance burden. A priori, we expect that small businesses that elect to use a paid professional are substituting monetary expendi-

tures for time spent on tax compliance and will, therefore, have higher levels of total money burden. We also expect that those businesses that complete their taxes inhouse without tax software will have relatively less complex tax situations and will, therefore, spend smaller amounts of time on tax compliance. In addition, we expect that the monetary outlays of self-preparers will be relatively small as they are spending money only on form submission (e.g., photocopies, postage, and transportation). We expect that software preparers will have significant expenses associated with tax software and also higher time than self-preparers as their tax situations may be more complex.

In each of the tables below, we present our findings by preparation method and firm size. We do this to control for the effect of firm size on the prep method numbers. For income tax, the numbers seem to meet our a priori expectations. Ignoring the impact of size and looking at all firms in the sample, paid preparers have the highest average money burden, while self-preparers have both the lowest average time and money burden. Paid and software preparers have nearly identical average time burden, and software preparers are in the middle in terms of average money burden. These patterns continue to hold when we look at the different size categories. Average money burden seems quite high for self-preparers in the largest firm size category, although this is attributable to the small number of observations in this cell.

Table 3.--Income Tax Compliance Burden by Prep Method and Firm Size

Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
	Paid Preparers			Self Preparers			Software Preparers		
All Firms	254	\$2,530	4,031	156	\$47	721	252	\$796	1,040
1 - 19 Employees	220	\$2,138	3,417	141	\$44	681	231	\$807	934
20 - 99 Employees	451	\$5,140	530	431	\$61	33	459	\$589	86
100 or More Employees	837	\$7,591	84	653	\$212	7	742	\$852	20

Table 4 presents the results from the employment tax survey. Paid preparers once again have the highest average money burden, but they also have the lowest average time burden. While this may be surprising, it seems consistent with what businesses told us during the qualitative research. Many taxpayers who used a paid preparer or payroll vendor explained that they have the preparer or vendor handle all aspects of employment tax compliance, and they simply transfer information to their vendors or preparers to facilitate this. Self-preparers have higher average time burden than paid preparers, but lower average time than software preparers who have the highest average time burden. Software preparers also have significant average money burden as they are spending money on tax software modules that allow them to comply with their employment tax obligations.

Table 4.--Employment Tax Compliance Burden by Prep Method and Firm Size

Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
	Paid Preparers			Self Preparers			Software Preparers		
All Firms	110	\$617	703	126	\$211	181	249	\$516	205
1 - 19 Employees	100	\$546	571	111	\$169	154	234	\$470	145
20 - 99 Employees	174	\$1,293	112	212	\$264	22	267	\$771	47
100 or More Employees	166	\$819	20	288	\$1,579	5	488	\$235	13

Firm Structure

Another demographic factor that is important in explaining compliance burden is firm structure. The small businesses in our sample are structured as C corporations, S corporations, partnerships, and LLC's. Each of these business structures has unique tax characteristics, and this can influence the level of compliance burden. For example, both partnerships and S corporations are passthrough entities, and all tax liability is passed through to the individual owners. LLC's typically file as partnerships. In addition, each of these firm structures has different recordkeeping requirements, files different primary tax forms, deals with different sections of the tax code, and produces different types of information returns.

One of the clearest findings is that partnerships have the lowest average time and average money burden for income tax compliance. This may be attributable to the fact that more than 90 percent of the partnerships in our sample are in the smallest firm-size category. The other firm structures are very similar in terms of average time and average money burden. C corporations have slightly higher average time burden than S corporations or LLC's. LLC's have the highest average money burden with \$2,611.

Table 5.--Income Tax Compliance Burden by Firm Structure and Firm Size

Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
	C-Corporation			S-Corporation		
All Firms	267	2,231	1,691	249	2,282	2,038
1 - 19 Employees	219	1,705	1,394	224	1,946	1,794
20 - 99 Employees	481	4,510	255	403	4,936	210
100 or More Employees	657	6,934	42	706	4,009	34
Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
	Partnership			LLC		
All Firms	199	1,516	756	247	2,611	793
1 - 19 Employees	163	1,279	688	210	2,362	696
20 - 99 Employees	545	3,643	60	576	5,996	74
100 or More Employees	1,287	9,581	8	1,035	5,531	23

The results for employment tax indicate that LLC's have the lowest average time and money burden. C corporations have both the highest average time and money burden for employment tax compliance. S corporations and partnerships have very similar average time and average money burden for employment tax compliance.

Table 6.--Employment Tax Compliance Burden by Firm Structure and Firm Size

Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
C-Corporation			S-Corporation			
All Firms	189	614	243	139	488	738
1 - 19 Employees	169	396	181	125	462	594
20 - 99 Employees	325	1,890	55	222	697	118
100 or More Employees	118	127	7	234	489	26
Firm Size	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N	Mean Total Time Burden (Hrs)	Mean Total Money Burden (\$)	N
Partnership			LLC			
All Firms	122	450	84	100	341	53
1 - 19 Employees	95	353	71	104	225	41
20 - 99 Employees	203	81	9	96	848	9
100 or More Employees	291	1,882	4	67	86	3

Compliance Costs by Activity

In the previous sections of this paper, we examined how total time and money burden relate to firm characteristics and demographic information for income and employment tax. As discussed earlier, we asked businesses to report this tax compliance burden at the activity category level. By collecting the information in this manner, we are able to determine the average shares of total time burden for each activity category. This allows us to understand which aspects of the tax compliance process compose the majority of time for taxpayers. We can also examine how these shares compare among different groups of taxpayers. In this section, we compare the average shares of total time burden based on preparation method and firm size.

In examining the relative shares for income tax (Table 7), we see that the overwhelming majority of time burden is spent recordkeeping. This share is 86 percent for paid preparers and approximately 80 percent for self and software preparers. Self and software preparers have similar shares for form completion and gathering materials/learning, and these shares are larger than the values for paid preparers. This is not surprising as both self and software preparers prepare the return themselves, while those using a paid professional typically only review the forms that are completed for them. The higher share for gathering materials/learning also makes sense as self and software preparers

Table 7.--Compliance Costs by Activity Category, Income Tax by Preparation Method

	Paid Professional	Record-keeping	Form Completion	Form Submission	Making Tax Payments	Tax Planning	Gathering Materials / Learning	Total	N
Paid Preparers	8%	86%	1%	0%	0%	4%	1%	100%	4,031
Self Preparers	0%	78%	9%	3%	3%	3%	4%	100%	721
Software Preparers	0%	79%	8%	2%	3%	3%	5%	100%	1,040

need to gather materials (e.g., tax forms, publications, tax software, and books with tax tips) and learn about the tax rules in order to prepare their returns. All of these activities are addressed by paid professionals for those using that preparation method.

The employment tax results are somewhat different and are displayed in Table 8 below. Once again, the recordkeeping share is the largest, but, in comparison to income tax, it makes up a smaller proportion of total compliance burden. For all three preparation methods, recordkeeping accounts for a little more than half of total time burden. In examining the relative shares, another interesting finding is that both self and software preparers spend a significant portion of their time on activities such as form completion, form submission, and calculating and depositing employment tax payments. In comparison, paid preparers spent very little time on these activities, but they spend a significant amount of time working with their paid professionals (i.e., 27 percent). Most of the time, paid preparers pay their payroll vendors or paid professionals to complete and submit their employment tax forms and payments and simply review these forms and payments and provide the information needed to complete this work. This explains why the relative shares are so low for these activities for the paid preparers, but time spent working with a paid professional (which includes reviewing forms and payments and transmitting information) is much higher. It appears that a significant portion of total time for self and software preparers is spent calculating and depositing

Table 8.--Compliance Costs by Activity Category, Employment Tax by Preparation Method

	Paid Professional	Record-keeping	Form Completion	Form Submission	Calculating Tax Payments
Paid Preparers	27%	56%	1%	1%	3%
Self Preparers	0%	54%	9%	6%	17%
Software Preparers	0%	58%	6%	4%	10%
	Depositing Payments	Gathering Materials / IRS Services	Information Reporting	Total	N
Paid Preparers	4%	3%	5%	100%	703
Self Preparers	8%	3%	3%	100%	181
Software Preparers	18%	2%	2%	100%	205

employment tax payments. These two shares account for 25 percent of total time for self-preparers and 28 percent of total time for software preparers.

We also wanted to examine how these activity categories varied with firm size. In looking at the results for income tax, there appears to be very little variability across firm size. Preparation method seems to have more impact on the relative shares than firm size.

Table 9.--Compliance Costs by Activity Category, Income Tax by Firm Size

	Paid Professional	Record- keeping	Form Completion	Form Submission	Making Tax Payments	Tax Planning	Gathering Materials / Learning	Total	N
1 - 19 Employees	7%	84%	2%	1%	1%	4%	2%	100%	5,108
20 - 99 Employees	7%	86%	1%	0%	0%	4%	1%	100%	654
100 or More Employees	5%	87%	2%	0%	0%	3%	2%	100%	113

The relationship between burden activity categories and firm size for employment tax is not very robust. Larger firms seem to spend a slightly larger share of their time on recordkeeping. The remainder of the results do not yield any significant differences.

Table 10.--Compliance Costs by Activity Category, Employment Tax by Firm Size

	Paid Professional	Record- keeping	Form Completion	Form Submission	Calculating Tax Payments
1 - 19 Employees	14%	55%	4%	3%	7%
20 - 99 Employees	10%	65%	3%	2%	5%
100 or More Employees	12%	62%	4%	2%	10%

	Depositing Payments	Gathering Materials / IRS Services	Information Reporting	Total	N
1 - 19 Employees	11%	3%	4%	100%	955
20 - 99 Employees	9%	3%	3%	100%	205
100 or More Employees	4%	5%	3%	100%	48

Other Findings from the Survey

Who Does the Compliance Work?

The first few sections of this paper presented data illustrating how time and money burden relate to the demographic characteristics of small businesses.

We saw that larger businesses tend to have higher levels of overall time and money burden, and we also looked at how these compliance costs vary by entity structure and tax preparation method. In this section, we investigate who within these companies is actually completing this compliance work.

Our a priori expectations and qualitative research lead us to believe that this work is primarily done by the owner or owners in the smallest businesses. For businesses that are very small, the owner often has to be a “jack of all trades” and is involved in all areas of tax compliance, including recordkeeping, working with a paid professional, tax planning, and completing tax forms. As business size increases, we would expect that more of this work is completed by inhouse accounting departments or staff members who have a background in finance and accounting. For these larger small businesses, the owner will not be involved in the day-to-day aspects of tax compliance such as recordkeeping and making tax payments, but will instead be brought in during more important points in the compliance process such as tax planning sessions, completing and reviewing the tax return at the end of the year, and attending key meetings with a paid professional.

The results presented in this section are based on a question on both surveys in which we had respondents explain what percent of the total time burden reported is completed by different staff classes. The four choices were owner or owners, executive or professional staff, clerical or administrative staff, and other staff. If a respondent selected other staff, he or she was asked to provide a description of this staff class. If this description matched one of the other three staff classes, we recoded these responses.

Examining the division of labor for income tax in Table 11 below, we see that the data follow the expected pattern. In the smallest businesses, the owner spends about two-thirds of the total time reported, and this number decreases as we look at each size category. Conversely, the time spent by executive and professional staff is lowest for the smallest firms and increases steadily as firm size increases. As firm size increases, firms typically have small accounting departments where executive and professional staff complete compliance work.

Table 11.--Income Tax Division of Labor

Firm Size	Percent of Time Spent by Owner	Percent of Time Spent by Executive or Professional Staff	Percent of Time Spent by Clerical or Administrative Staff	Percent of Time Spent by Other Staff	Total	N
1 - 19 Employees	67%	15%	15%	2%	100%	4,720
20 - 99 Employees	39%	30%	29%	2%	100%	599
100 or More Employees	21%	48%	28%	2%	100%	100

Table 12 shows that this pattern also holds for employment tax. One of the main differences between income and employment tax is that a much higher percentage of the compliance work is completed by clerical and administrative staff for employment tax. We believe that this is attributable to many of these employment tax compliance activities being simpler and requiring less detailed knowledge of accounting and the tax code.

Table 12.--Employment Tax Division of Labor

Firm Size	Percent of Time Spent by Owner	Percent of Time Spent by Executive or Professional Staff	Percent of Time Spent by Clerical or Administrative Staff	Percent of Time Spent by Other Staff	Total	N
1 - 19 Employees	62%	15%	21%	2%	100%	904
20 - 99 Employees	31%	26%	42%	2%	100%	194
100 or More Employees	10%	32%	51%	7%	100%	48

What Special Tax Characteristics Drive Compliance Costs?

The previous sections of this paper examined how compliance costs are related to firm size, firm structure, and choice of preparation method. In this section, we will examine how other special tax characteristics influence compliance costs. A good portion of our questionnaires asked respondents whether they engaged in certain activities or had special tax characteristics that we believe drive compliance burden. Our qualitative research indicated that many of the characteristics presented in the tables below influence the amount of compliance burden that a small business incurs.

For example, the level of income tax compliance burden may be influenced by the type of accounting method a business uses (i.e., cash versus accrual), whether they have foreign operations, whether they are depreciating assets, and the types of recordkeeping activities in which they engage. Each of these characteristics drives compliance burden by influencing the intensity of recordkeeping, the complexity of form completion and tax planning, and the decision of whether or not to use a paid professional. The special tax characteristics we look at for employment tax drive compliance burden for the same reasons. The tables below by no means present an exhaustive list of the special tax characteristics that influence the level of burden. We asked taxpayers about many others but chose to present results for some of the more interesting characteristics here.⁹

The tables below present the mean time and money burden for firms with special tax characteristics in comparison to the mean time and money burden for all firms in the sample. The percentage difference is the calculated difference between the mean time and money burden for firms that have the characteristics versus all firms in the sample. Table 13 shows that firms with foreign operations spend approximately 739 percent more time than the average time spent by the full sample and approximately 1132 percent more money. While we expect that a significant portion can be explained by size differences (i.e., we believe that foreign operations tend to be much larger on average), it is also attributable to the increased complexity of recordkeeping, form completion, and tax planning. For example, these firms may deal with issues such as transfer pricing, which is very complex and does not impact domestic firms. Another interesting finding is that firms that keep records for the Alternative Minimum Tax (AMT) regardless of whether they pay AMT have approximately 100 percent more time burden and 239 percent more money burden. All of the other special tax characteristics presented below appear to significantly impact the average time and money burden spent on income tax compliance.

Table 13.--Special Income Tax Characteristics and Burden

	Mean Total Time Burden (Hrs) for All Firms	Mean Total Time Burden (Hrs) for Firms with Characteristic	Percent Difference in Mean Total Time	Mean Total Money Burden (\$) for All Firms	Mean Total Money Burden (\$) for Firms with Characteristic	Percent Difference in Mean Total Money	N
Accrual Accounting Method	247	501	103%	\$2,181	\$7,183	229%	1,776
Foreign Operations	247	2073	739%	\$2,181	\$26,867	1132%	99
Filed IT in Multiple States	247	790	220%	\$2,181	\$14,545	567%	464
Recordkeeping for AMT	247	494	100%	\$2,181	\$7,388	239%	1,401
Completed EOY Physical Inventory for tax purposes	247	465	88%	\$2,181	\$4,342	99%	1,868
Put Depreciable Assets in Service	247	401	62%	\$2,181	\$5,504	152%	2,508
Business Maintained a Mileage Log	247	330	34%	\$2,181	\$2,689	23%	1,583

We looked at a smaller number of tax characteristics for employment tax. These characteristics are displayed below in Table 14. All of the characteristics listed in the employment tax table significantly impact the types of records that businesses have to keep and the amounts of recordkeeping that they complete. For instance, businesses that have tip income such as restaurants, salons, and other service businesses must track this tip income, withhold and deposit taxes on this tip income, and report this information to the IRS. This is done on top of the withholding and depositing that are done for regular employee wages. Similarly, businesses that have compensation subject to special tax rules must keep records of this compensation, determine

how tax should be withheld, and withhold and deposit this tax. These characteristics can lead to higher time burden by increasing recordkeeping time as well as additional money burden by increasing paid professional fees. This pattern is evident in the table below. For example, businesses that have tip income have 86 percent higher time burden and 139 percent higher money burden than the average for the full sample. Overall, the special tax characteristics for employment tax do not increase the magnitude of average time and money burden nearly as much as the characteristics chosen for income tax.

Table 14.--Special Employment Tax Characteristics and Burden

	Mean Total Time Burden (Hrs) for All Firms	Mean Total Time Burden (Hrs) for Firms with Characteristic	Percent Difference in Mean Total Time	Mean Total Money Burden (\$) for All Firms	Mean Total Money Burden (\$ for Firms with Characteristic	Percent Difference in Mean Total Money	N
Files ET in Multiple States	143	205	43%	\$488	\$527	8%	110
Tip Income	143	265	86%	\$488	\$1,168	139%	44
Compensation Subject to Special Tax Rules	143	175	22%	\$488	\$644	32%	416
Advance EIC	143	247	73%	\$488	\$887	82%	66
Special Withholding Situations (e.g. exemption from withholding, nonresident aliens, tax treaty exemptions)	143	168	18%	\$488	\$703	44%	126

Comparison of W&I, SE, and SB costs

As discussed in the introduction, the SB study is the third in our series of burden studies for the IRS. The first study looked at the income tax burden for W&I taxpayers, and the subsequent study focused on the income tax burden for SE taxpayers. In this section, we will examine how the average burden and the burden shares compare between these three groups.

Table 15 displays the average time and money burden by activity category for each taxpayer group. From this table, it is evident that SE taxpayers spend significantly more total time on average than W&I taxpayers and that SB taxpayers spend significantly more total time on average than either SE and W&I taxpayers. This result is not surprising as businesses tend to have more complex recordkeeping requirements, and the tax code that businesses interact with is more complex than that which W&I or SE taxpayers encounter. The table illustrates that SB and SE taxpayers are very similar in the average time spent on activities such as form completion, form submission, and gathering materials, and even tax planning. In contrast, they are vastly different in terms of average time spent on recordkeeping and working with a paid professional.

Table 15.--Mean Burden by Taxpayer Group

	W&I	SE	SB
Number of Taxpayers	5,851	8,192	5,913
Recordkeeping	5.95	43.94	209.13
Paid Professional	0.78	4.81	16.68
Form Completion	2.92	4.90	4.45
Form Submission	0.88	1.29	1.47
Making Tax Payments			1.37
Tax Planning	3.12	7.44	9.02
Gathering Materials	1.25	4.72	4.43
Using IRS Services	0.30	0.99	
Total Time	15.21	68.09	246.56
Total Money	\$68.28	\$340.65	\$2,724.20

The total time shares by taxpayer group (Table 16) indicate that the share of time spent on recordkeeping increases steadily as we move from the W&I group to the SB group. It is interesting that the shares spent on form completion and form submission follow the opposite pattern. This makes sense as W&I taxpayers spend a larger portion of their time completing and submitting forms at yearend, while, for SB and SE taxpayers, a large portion of the work is maintaining and organizing records throughout the year so that the forms can easily be completed at yearend. In addition, more complex taxpayer groups are more likely to use a paid preparer, mostly eliminating taxpayer time spent on form completion.

Table 16.--Total Time Shares by Taxpayer Group

	W&I	SE	SB
Recordkeeping	39%	65%	85%
Paid Professional	5%	7%	7%
Form Completion	19%	7%	2%
Form Submission	6%	2%	1%
Making Tax Payments	0%	0%	1%
Tax Planning	21%	11%	4%
Gathering Materials	8%	7%	2%
Using IRS Services	2%	1%	0%
Total	100%	100%	100%

Is Income Tax or Employment Tax More Burdensome for SB Taxpayers?

As stated in the methodology section, the income tax and employment tax surveys were administered separately. Although we did not collect the income

and employment tax information from the same taxpayers, we thought it would be interesting to see how the level of income tax burden compares to the level of employment tax burden. To do this in a meaningful way, we compared these burdens for similar taxpayers. We did this by categorizing taxpayers based on size and business structure. The table below presents these results by illustrating the ratio of employment tax burden to income tax burden as a percentage.

Table 17.--Employment Tax Burden as a Percentage of Income Tax Burden

Firm Size	Mean Total		Mean Total		Mean Total		Mean Total	
	Time Burden (Hrs)	Mean Total Money Burden (\$)	Time Burden (Hrs)	Mean Total Money Burden (\$)	Time Burden (Hrs)	Mean Total Money Burden (\$)	Time Burden (Hrs)	Mean Total Money Burden (\$)
	C-Corporation		S-Corporation		Partnership		LLC	
All Firms	71%	28%	56%	21%	61%	30%	41%	13%
1 - 19 Employees	77%	23%	56%	24%	58%	28%	49%	10%
20 - 99 Employees	68%	42%	55%	14%	37%	2%	17%	14%
100 or More Employees	18%	2%	33%	12%	23%	20%	6%	2%

For the four business structures (i.e., C corporations, S corporations, and partnerships, and LLC's) the employment tax total time burden to income tax burden ratio ranges from 41 percent for LLC's to a high of 71 percent for C corporations. Therefore, employment tax compliance is less burdensome in terms of average total time than income tax compliance. Another interesting finding from the table is that in terms of money burden, the ratio of employment tax to income tax ranges from 21 percent-30 percent for C corporations, S corporations, and partnerships. The ratio is slightly lower for the LLC group, but the number of observations in this group is significantly smaller than the three primary entity types. We believe that the low ratio of approximately 20 percent-30 percent for money burden is very intuitive as most of the small businesses employment tax money burden comes from fees paid to a paid professional or money spent on employment tax software, both of which are relatively inexpensive in comparison to the fees paid for income tax services or for income tax software. For example, the software associated with employment tax tends to be quite affordable. QuickBooks payroll modules range from about \$200-\$500 annually.

Conclusion

The preliminary results presented in this paper highlight some of the key findings from our income and employment tax surveys of small businesses in the United States. We believe that this research will significantly enhance the

ability of the IRS to understand the taxpayer compliance burden experienced by small businesses. As these results are integrated with the results of the W&I and SE studies, the IRS will have powerful tools to estimate the level of taxpayer burden and develop burden reduction policies.

To summarize, our analysis illustrates that numerous firm demographics drive the level of time and money burden experienced by small businesses. We saw that firm size is strongly related to the level of income and employment tax burden. In particular, the preparation method that a business chooses significantly impacts the level and composition of compliance costs.

Another interesting finding came from looking at the relative shares of total time burden for small businesses. We learned that the overwhelming majority of time spent on income tax compliance is spent keeping records. For employment tax, recordkeeping also makes up the majority of total time, but it is a smaller proportion of the total time burden than it is for income tax. Not surprisingly, we also observed that the component shares of total time burden are different depending on the preparation method chosen by the business. For both income and employment tax, businesses that do not use a paid preparer spend a much larger portion of their time on activities such as form completion, form submission, and making tax payments.

When we looked at the division of labor for income and employment tax compliance work, we discovered that, in the smallest firms, the owners handle most of the compliance work themselves. As firm size increases, it appears that this work is handled by executive or professional staff working in small tax departments with assistance provided by clerical and administrative staff.

Our analysis also indicates that a variety of the special tax characteristics impacts the level of compliance burden. The analysis in this paper was limited to cross-tabulations, but we have begun use of other multivariate techniques such as regression analysis to further investigate this issue.

In comparing the mean burden experienced by W&I, SE, and SB taxpayers, we saw that the mean total burden of SB taxpayers was much larger than both the W&I and SE taxpayer groups. However, when we focused on the individual activity categories, we saw that most of the difference between SE and SB taxpayers is accounted for by a much larger amount of time spent on recordkeeping and working with a paid professional for those in the SB population. In fact, the mean times reported for several of the activity categories such as form completion, form submission, gathering materials, and tax planning, were relatively similar for SE and SB taxpayers.

The final section of the paper attempted to analyze how employment tax burden compared in size to income tax burden. This analysis is complicated by the fact that we did not survey the same taxpayers about both types of burden. However, by comparing taxpayers of similar size and business struc-

ture, we saw that income tax burden tends to be larger in terms of both time and money burden. The ratio of employment tax burden to income tax burden is consistently smaller for all size and structure categories in terms of money burden.

When the data collection work is completed for these two surveys, we plan on using the data collected from taxpayers along with IRS administrative data to develop a microsimulation model for the IRS. Work on this task is already under way, and, when completed, the IRS can use this model to assess how changes in tax administration and IRS policies will impact the expected level of income and employment tax burden experienced by small businesses.

Endnotes

- ¹ For further background on these research efforts, see Stavrianos and Greenland (2002); Arena et al. (2003); Guyton et al. (2003).
- ² See Evans (2003) for a thorough review.
- ³ The findings presented in this paper are preliminary. At the time we wrote this paper, we were approximately 95-percent finished with the data collection for both the income and employment tax surveys. Our target number of completes was 7,000 for the income tax survey and 2,000 for the employment tax survey. At the time of this paper, we were waiting for some of the completed records to be data entered; so, we had approximately 6,000 income tax records available for analysis and approximately 1,200 employment tax records available for analysis.
- ⁴ The analysis presented in this paper is focused on the direct results of the survey. Results coming out of the microsimulation model we build may differ from the results presented in this paper.
- ⁵ This method was developed by Don Dillman, professor of sociology at Washington State University.
- ⁶ The seven income tax activity categories include time spent on recordkeeping, working with a paid professional, form completion, form submission, making estimated tax payments, tax planning, and gathering materials and using IRS services. The employment tax activity categories include all the income tax categories plus calculating employment tax payments.

- ⁷ The out-of-pocket income tax categories included paid professional services, tax software, and form submission. For the employment tax survey, the out-of-pocket categories were payroll vendor or paid professional fees, tax software, form submission, and payment submission.
- ⁸ This methodology for calculating average compliance costs was used by Slemrod and Venkatesh in their 2002 report to the IRS LMSB division.
- ⁹ Ideally, we would control for size effects by looking at this information cross-tabulated with size categories. Unfortunately, doing this would make the number of observations in many of the cells small, and this would make it difficult to make comparisons. We believe that there is variability in the data presented below by not controlling for size, but analysis not presented in this paper including multiple regression analysis indicates that the incidence of these characteristics do have a significant impact on the level of burden.

References

- Arena, Peter; O'Hare, John F.; and Stavrianos, Michael P. (2003), Measuring Taxpayer Compliance Burden: A Microsimulation Approach, Proceedings of the 95th Annual Conference on Taxation, *National Tax Journal*, pp. 333-341.
- Dillman, Don (1978), *Mail and Telephone Surveys: The Total Design Method*, Wiley-Interscience, New York, 375pp.
- Evans, Chris (2003), Studying the Studies: An Overview of Recent Research into Taxation Operating Costs, *The eJournal of Tax Research*, Volume 1, Number 1, pp. 64-92.
- Guyton, John L.; O'Hare, John F.; Stavrianos, Michael P.; and Toder, Eric J., "Estimating the Compliance Cost of the U.S. Individual Income Tax," *National Tax Journal* LVI-3 (September 2003), pp. 673-688.
- Slemrod, Joel and Venkatesh, Varsha, *The Income Tax Compliance Costs of Large and Midsized Businesses*, A Report to the IRS LMSB Division, September 2002.
- Stavrianos, Michael and Greenland, Arnold, Design and Development of the Wage and Investment Compliance Burden Model, presented at the 2002 IRS Research Conference, Washington D.C., June 2002.